

State of California
Department of Food and Agriculture
Division of Measurement Standards

Certificate Number: 5374-04

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California Type Evaluation Program
Certificate of Approval
for Weighing and Measuring Devices

For:

Hopper Scale Weighing/Load Receiving Element
Load Cell Electronic
Models: WB460GAL, CB4YD, AB16YD, RB12YD,
and SD7YD
Capacity: See Table on Page 2
 n_{\max} : See Table on Page 2
 e_{\min} : See Table on Page 2
Accuracy Class: III L

Submitted by:

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Standard Features and Options

Primary weight indications and motion detection are provided by an approved and compatible weight indicator.

Hopper construction: Mild steel

Load cells: HBM Model S35 Series (Certificate of Conformance Number 97-142A1)

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the California Type Evaluation Program (CTEP) and was found to comply with the applicable technical requirements of California Code of Regulations for "Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: February 13, 2004



Mike Cleary, Director

Calaveras Materials, Inc.
Hopper Scale Weighing/Load Receiving Element
Models: WB460GAL, CB4YD, AB16YD, RB12YD, and SB7YD

Model*	n _{max}	e _{min} (lb)	Capacity (lb)	Dimensions (inches)	Load Cells		Shape
					Number	Capacity	
WB460GAL	1 500	2	3 000	60 High x 48 Diam	One	5k	Cylinder with tapered bottom
CB4YD	1 600	5	8 000	116.5 High x 117 Diam	Three	5k	Semi-cylindrical cone
AB16YD	2 000	20	40 000	168 High 132 Long 60 Wide	Three	20k	Rectangular with tapered bottom
RB12YD	1 500	20	30 000	138 High 90 Long 66 Wide	Three	15k	Rectangular with tapered bottom
SB7YD	1 000	20	20 000	138 High 66 Long 66 Wide	Three	15k	Rectangular with tapered bottom

*where, WB = Water Batcher; CB = Cement Batcher; AB = Aggregate Batchers; RB = Rock Batchers; and
 SB = Sand Batchers

Application: Construction material hopper scale weighing elements when used with approved and compatible indicating elements.

Identification: An identification plate containing all required information is riveted to each individual hopper.

Sealing: The junction box on the three (3) load cell hopper scale Models CB4YD, AB16YD, RB12YD, and SB7YD may be sealed with a wire security seal threaded through a drilled head bolt and an adjacent eyelet on the cover. Sealing for the calibration and configuration parameters is provided by the certified and compatible indicating element.

Test Conditions: The Models WB460GAL, CB4YD, and AB16YD weighing elements were submitted for evaluation and were each interfaced with a Flex-Weigh Model DWM IV indicator (Certificate of Approval Number 2776-86). Model number WB460GAL and CB4YD weighing elements were tested to capacity using known test weights. Model number AB16YD was tested to capacity using 10 000 lb of known test weights and substitution material. The Models RB12YD and SB7YD were not tested but are covered by testing the Model AB16YD weighing element. The emphasis of the evaluation was on device design, marking requirements, and performance of the weighing element. Several increasing/decreasing load, discrimination, and return to zero tests were initially performed and then repeated after approximately 30 days and a minimum of 300 normal use weighments.

Results of the evaluation indicate the devices comply with applicable requirements.

Type Evaluation Criteria Used: Title 4, California Code of Regulations, 2004 Edition

Tested By: Ken Jones (CA)